

**Notice of Allowability**

Application No.

09/559,749

Examiner

Eric B. Compton

Applicant(s)

IMOEHL, WILLIAM J.

Art Unit

3726

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to an Appeal Brief filed July 12, 2004.
2. ☒ The allowed claim(s) is/are 2-10.
3. ☒ The drawings filed on 4/27/00 & 8/9/01 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
  - \* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment                               |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|   | 9. <input type="checkbox"/> Other _____.   |

## **DETAILED ACTION**

### ***Reasons for Allowance***

1. Applicant's arguments filed in the Appeal Brief dated July 12, 2004, are generally found persuasive.
2. In light of the Applicant filing of the Appeal Brief, the Examiner had a full English language translation of JP 60-019957 (YUJI) conducted. After reviewing this document, the Examiner concludes there is not disclosure as to machining the valve seat as claimed by Applicant. The reference merely discloses that grinding finishes the valve seat. Page 5, ¶ 1. In discussing the prior art, the reference noted that grinding or lapping was used for finishing as well. Page 4, ¶ 2. However, without a transition portion, as disclosed by the reference, a deburring step was necessary, which involved the use of a conical grinding tool. Page 4, ¶ 3. The provision of the transition portion obviated the need for a deburring step. Page 6, ¶ 3 (discussing advantages of the invention). The only discussing of use of a conical grinding tool, therefore, was with regards to the deburring step. There is no further disclosure by the reference of the finishing or lapping step.
3. The further prior art relied on by the Examiner, AAPA and Gabrielli, disclose grinding a valve seat with a conical grinding tool. However, there is no suggestion of providing a transition portion.
4. Lastly, neither YUJI, AAPA, or Gabrielli, disclose that "the transition portion provides a volume receiving the vertex of the tool so that the vertex avoids

contact with the sealing surface and with the transition portion, the vertex being contiguous to the axis," as claimed in claim 7.

5. Thus, the Examiner is inclined to agree with Applicant assertion,

At most, the proposed combination could suggest to one of ordinary skill in the art to implement a conical tool with its vertex disposed outside of the coupling surface 15 and would not teach or suggest all of the claimed features. 19 That is, even assuming *arguendo*, that various elements could be arbitrarily selected from the relied-upon prior art-for example, operating a known conical tool (shown as dashed line forming a vertex in orifice surface 14 of a "modified" Figure 2 of Yuji) by the grinding machine of Gabrielli on the conical surface 13 of Yuji-the proposed combination of references still fails to show or describe a method of grinding a sealing surface of a valve seat with a conical tool having its vertex disposed in a transition portion. Therefore, a prima facie case of obviousness has not been established as set forth in MPEP § 2143 (p. 2100-125, 8th Ed., February 2003 Revision). Accordingly, claim 7 is patentable for at least this reason.

Appeal Brief, Page 9.

6. In conclusion, there prior rejections based on YUJI, AAPA, and Gabrielli are hereby withdrawn and the claims are allowed.

### **Contact Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric B. Compton whose telephone number is (703) 305-0240. The examiner can normally be reached on M-F, 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter B. Vo can be reached on (703) 308-1789. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Eric Compton  
Patent Examiner  
Art Unit 3726